

What is claimed is:

1. A reciprocating slat conveyor, comprising:

a plurality of laterally spaced apart guide beams;

at least one hold-down bearing on each guide beam;

at least one anti-splash bearing on each guide beam,

5 positioned endwise of the hold-down bearing; and

a conveyor slat on each guide beam, each conveyor slat having a top, opposite sidewalls, and bottom flanges extending laterally inwardly from the sidewalls, with an inner space being defined in each conveyor slat, below the top, between the 10 sidewalls and above the bottom flanges;

each said hold-down bearing being positioned partially within the inner space of its slat, and having a lower portion holding it against vertical movement up off its guide beam and an upper portion that is within the inner space of the slat and 15 has downwardly directed surfaces that confront and are positioned directly above inner edge portions of the bottom flanges; and

said anti-splash bearing having an upper portion that rests on the guide beam, opposite side portions that depend downwardly from the upper portion, and laterally outwardly projecting flaps that extend laterally outwardly from the side portions, below the bottom flanges of the conveyor slat, wherein the flaps block upper movement of water from below the conveyor to the underneath sides of the slats in the length 25 regions of the conveyor where the anti-splash bearings are located.

2. The reciprocating slat conveyor of claim 1, wherein the laterally outwardly projecting flaps are in the nature of leaf springs that are formed to slope upwardly as they extend outwardly, and wherein when the conveyor slat is on the 5 anti-splash bearings, the bottom of the floor slats contact the flaps on the anti-splash bearings and bend them downwardly, storing spring energy in the flaps that act to bias the flaps upwardly against the bottom flanges on the conveyor slats.

3. The reciprocating slat conveyor of claim 1, wherein the anti-splash bearings have laterally outwardly and sloping lower regions that connect the side portions of the anti-splash bearings with the laterally outwardly projecting flaps.

4. The reciprocating slat conveyor of claim 2, wherein the anti-splash bearings have laterally outwardly and sloping lower regions that connect the side portions of the anti-splash bearings with the laterally outwardly projecting flaps.

5. The reciprocating slat conveyor of claim 3, wherein the diagonal regions are thinner than the side portions of the hold-down bearing and are thinner than the laterally outwardly projecting flaps, said thinner portions serving as hinge regions wherein most of the bending occurs when the contact between the bottom flanges of the slats bend the outwardly projecting flaps downwardly.

5. The reciprocating slat conveyor of claim 4, wherein the diagonal regions are thinner than the side portions of the hold-down bearing and are thinner than the laterally outwardly projecting flaps, said thinner portions serving as hinge regions wherein most of the bending occurs when the contact between the bottom flanges of the slats bend the outwardly projecting flaps downwardly.

7. The reciprocating slat conveyor of claim 1, comprising a pair of hold-down bearings on each guide beam spaced apart lengthwise of the guide beam, and a substantially continuous anti-splash bearing between the two hold-down bearings.

8. The reciprocating slat conveyor of claim 7, wherein the hold-down bearings have lower portions that block upward movement of water from below the conveyor to the underneath sides of the slats in the regions of the hold-down bearings.